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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/502,178	12/23/2004	Thierry Nuris	RN02005	5531

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Jean Louis Seugnet
Intellectual Property Department
Rhodia Inc CN 7500
259 Prospect Plains Road
Cranbury, NJ 08512-7500

EXAMINER

LEO, LEONARD R

ART UNIT	PAPER NUMBER
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3744

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/10/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/502,178	Applicant(s) NURIS ET AL.	
	Examiner Leonard R. Leo	Art Unit 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-38 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 20-38 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “agitator is formed by an endless screw” in claim 32 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 25-27, 31 and 34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 25 recites the limitation "said second bundle" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

Claim 31 recites the limitation "the ceiling" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 34 recites the limitation "the inner bundle" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 20-24, 28-29 and 35-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Peff. Peff discloses a distributor 13, manifold 15 and a first segment 9 and second segment 10 wound along a helical generatrix with substantially the same bending radius. Regarding claims 1 and 28, the recitation of "for treating a viscous medium or for carrying out chemical reactions in viscous medium" is considered to be a statement of intended use, even if claimed,

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does not merit patentable weight unless the body of the claim refers back to, is defined by, or otherwise draws life and breadth from such intended use. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Regarding claims 21-22, Peff discloses a second bundle having two segments 17, 18 wound along a helical generatrix with a smaller bending radius, where segment 17 is nested inside of segment 18. Regarding claim 23, Peff discloses a third segment 11 in the first bundle. Regarding claim 24, the first, second and third segments 9-11 have the same length. Regarding claims 28-29, the similar structure of the device of Peff is manufactured in a manner similar to the method claims. Regarding claims 35-38, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

Claims 20, 23-24, 28-29 and 35-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Fordsmand (Figures 4A and 4B). Fordsmand discloses a distributor 15, manifold 11 and a first segment 12 and second segment 13 wound along a helical generatrix with substantially the same bending radius. Regarding claims 1 and 28, the recitation of "for treating a viscous medium or for carrying out chemical reactions in viscous medium" is considered to be a statement of intended use, even if claimed, does not merit patentable weight unless the body of the claim refers back to, is defined by, or otherwise draws life and breadth from such intended use. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Regarding claim 23, Fordsmand discloses a third segment 14. Regarding claim 24, the first, second and third segments 12-14 have the same length. Regarding claims 28-29, the similar structure of the device of Fordsmand is manufactured in a manner similar to the method claims. Regarding claims 35-38, it has been

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held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

Claims 20-26, 28-29 and 35-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Lameris. Lameris discloses a distributor 9, manifold 6 and a first segment 10 and second segment 11 wound along a helical generatrix with substantially the same bending radius.

Regarding claims 1 and 28, the recitation of “for treating a viscous medium or for carrying out chemical reactions in viscous medium” is considered to be a statement of intended use, even if claimed, does not merit patentable weight unless the body of the claim refers back to, is defined by, or otherwise draws life and breadth from such intended use. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Regarding claims 21-22, Lameris discloses a second bundle having two segments 13-14 wound along a helical generatrix with a smaller bending radius. Regarding claim 23, Lameris discloses a third segment 12. Regarding claim 24, the first, second and third segments 10-12 have the same length. Regarding claim 25, tube 4 extends along an axis parallel to the bundle and is connected to the distributor 9. Regarding claim 26, the distributor 9 and manifold 6 have a torus form. Regarding claims 28-29, the similar structure of the device of Lameris is manufactured in a manner similar to the method claims. Regarding claims 35-38, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lameris.

Lameris discloses all the claimed limitations except the radius of the distributor and/or manifold being substantially equal to the bundle.

The specific radius of the distributor and/or manifold is considered to be an obvious design expedient, producing no new and/or unexpected results and solving no stated problem. One of ordinary skill in the art would employ any sized radius for the purpose of accommodating the fluid requirements.

Claims 30-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lameris, Peff or Fordsmand in view of Ono et al.

Lameris, Peff or Fordsmand discloses all the claimed limitations except an agitator.

Ono et al discloses a reactor comprising a vessel 1, heat exchanger 2 and agitator 5, 8, 9 for the purpose of improving heat exchange.

Since Lameris, Peff or Fordsmand and Ono et al are both from the same field of endeavor and/or analogous art, the purpose disclosed by Ono et al would have been recognized in the pertinent art of Lameris, Peff or Fordsmand.

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It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Lameris, Peff or Fordsmand an agitator for the purpose of improving heat exchange as recognized by Ono et al.

Regarding claim 31, Ono et al discloses shaft 12 suspending the agitator 8, 9 surrounding the heat exchanger 2 with inlet 3 and outlet 4 at the bottom of the vessel 1.

Regarding claim 32, the agitator 5, 8, 9, of Ono et al is read as an endless screw.

Regarding claim 33, the heat exchanger 2 of Ono et al is about 45% of the vessel radius.

Regarding claim 34, the specific radius of the bundle is considered to be an obvious design expedient, producing no new and/or unexpected results and solving no stated problem. One of ordinary skill in the art would employ any radius of the bundle to achieve a desired amount of heat exchange.

Conclusion

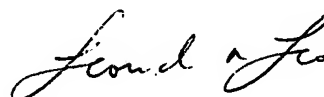
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard R. Leo whose telephone number is (571) 272-4916. The examiner can normally be reached on Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



LEONARD R. LEO
PRIMARY EXAMINER
ART UNIT 3744

December 31, 2006